

Abstract of the Disclosure

A surround-vision display system with a very high visual dynamic range is made possible by distributing a limited number of LED's on the inside of a drum

5 and then spinning that drum around a user. The pixel information for each horizontal position in space is sent to each corresponding LED it visits that position. The LED's are arranged in a grid on a panel tile, and the panel tile is tilted slightly, e.g., at 1.1-degrees. The result is each panel tile presents a continuous vertical stripe in the picture frame as all its LED's are swept by in the

10 drum motion. Several panel tiles stacked vertically inside the drum all contribute to the whole height of the picture frame, e.g., several feet. The entire inside circumference of the drum is populated with the LED panel tiles to keep frame refresh rates up to avoid flicker while keeping drum rotation speeds down to reasonable levels. Thus even though the LED's and drum are moving, the image

15 projected appears to be relatively stationary.